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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peijun Jiang

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EXAMINER

VERAA, CHRISTOPHER

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,340	Applicant(s) JIANG ET AL.	
	Examiner CHRISTOPHER E. VERAA	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/20/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 7 is objected to because of the following informalities: on line 2, "wherein a width of at least one the groove" contains a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8, 9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by James (US-1994519).

As to claim 1, James teaches an illuminable sign comprising a first plate 11 of light-transmitting material with a three dimensional body 15a (see figure 6) disposed thereon in the shape of indicia, and a light source 13 that is located along an edge of the sign.

As to claim 2, the plate taught by James is transparent glass.

As to claim 8, James teaches a second plate that is parallel to the first plate.

As to claim 9, James teaches the three dimensional body 15a attached to both plates.

As to claim 11, James teaches a second plate disposed over the front surface of the first plate.

As to claim 12, in figure 6, the plates are shown to be optically separated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 7, 10 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over James (US-1994519).

As to claim 3, James teaches two embodiments, one with a three dimensional body serving as indicia (figure 6), and one with grooves serving as indicia (figure 3). All the claimed elements were known in the art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 7, it would be obvious to one of ordinary skill in the art to make the groove in excess of 3 mm wide, since the mere optimization of dimensions is within the skill of one of ordinary skill in the art.

As to claim 10, James teaches an embodiment where the indicia is formed as grooves cut into the transparent plate (Figure 3). In this case, a third plate 20 is disposed between the first and second plate to provide a background for the indicia. It would be obvious to one of ordinary skill in the art to include a third plate since this would merely be a combination of known elements by known methods with no change in their respective functions to produce predictable results.

As to claim 14, light sources with color temperature of 5000 K (commonly referred to as D50) is a standard luminant. Standard luminants having color temperature higher than 5000 K are also known in the art. The claim is obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claims 15-17, art pastes, both UV-hardening and self-hardening, are well known in the art of decalcomania and it would be obvious to one of ordinary skill in that art to use any of the claimed pastes to produce the decalcomania for the sign taught by James as a routine expedient.

As to claim 18, James teaches two embodiments, one with a three dimensional body serving as indicia (figure 6), and one with grooves serving as indicia (figure 3). All the claimed elements were known in the art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. Both the decalcomania and

grooves are in the shape of indicia, and so the subsequent combination of the two elements would result in them being in register.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over James (US-1994519) in view of Hotchner (US-1937957). James teaches grooves located on the back face of the first plate 11. Hotchner teaches a sign where indicia is formed as grooves on the front of a first plate, (or on both sides, as shown in figure 5). It would be obvious to one of ordinary skill in the art to construct the sign of James with grooves on the front side of the plate as a known alternative that would yield predictable results without altering the function of the grooves.

Claims 5, 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over James (US-1994519) in view of Blanchet (US-4811507).

As to claims 5 and 6, James lacks details regarding the depth of grooves. Blanchet teaches an edge-lit sign with uniformly spaced grooves wherein the depth of the grooves increases with distance from the light sources. This provides uniformity in the illumination provided to the grooves. It would be obvious to one of ordinary skill in the art to construct the grooves of James with depth that increases with distance from the light source in order to achieve enhanced uniformity of illumination.

As to claim 13, James teaches a single light source that wraps around all four edges of the sign. Blanchet teaches a sign that is edge-lit by two light sources disposed on opposite edges of the sign. It would be obvious to one of ordinary skill in the art to

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construct the sign of James with two light sources on opposite edges, as this would be merely substitution of one known element for another and would have yielded predictable results.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER E. VERAA whose telephone number is (571)272-2329. The examiner can normally be reached on Monday through Friday, 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. E. V./
Examiner, Art Unit 3611

**/Lesley D. Morris/
Supervisory Patent Examiner, Art Unit 3611**